

Notice of Allowability

Application No.

09/826,037

Examiner

Doug Hutton

Applicant(s)

MIKHAILOV ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's Responses filed 10 January 2005 and 28 March 2005.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☒ The drawings filed on 10 January 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael J. Mehrman on 6 June 2005.

The application has been amended as follows:

In the Claims:

1. (currently amended) A computerized method for handling forms, comprising the steps of:

receiving a form from a form publisher comprising ~~one or more~~ data submission fields configured to receive user input;

automatically processing the form to identify the data submission fields;

automatically correlating each data submission field to a database field type supported by a database application;

automatically creating one or more database tables or other database structures in the database application corresponding to the form, each of the structure one or more database structures comprising a storage element corresponding to each data submission field;

automatically publishing the form to receive form submissions comprising data entries into the data submission fields;

receiving one or more form submissions; and

automatically entering the data entries of the form submissions into the corresponding storage elements of the database.

2. (currently amended) The method of claim 1, further comprising the steps of:

receiving a report file associated with the form, the report file comprising report elements associated with the storage elements of the database;

computing the report elements from the data entries associated with the storage elements of the database;

rendering ~~the a~~ report using the report file; and

delivering the report to a specified location.

3. (currently amended) The method of claim 1, wherein the step of receiving the form comprises the step of uploading the form ~~from a remote form publisher~~.

4. (currently amended) The method of claim 1, wherein the step of receiving the form comprises the step of:

launching a forms wizard ~~uploading~~; and

receiving user commands to the forms wizard to create the form.

5. (currently amended) The method of claim 2, wherein the step of receiving the report comprises the step of uploading the report ~~from a remote form publisher.~~

6. (currently amended) The method of claim 2, wherein the step of receiving the report file comprises the step of:

launching a reports wizard ~~uploading~~; and

receiving user commands to the forms wizard to create the report.

7. (original) The method of claim 1, wherein the step of processing the form to identify the data submission fields comprises the steps of:

parsing the form to identify the data submission fields;

determining a field type associated with each data submission field; and

determining a name associated with each data submission field.

8. (currently amended) The method of claim 1, wherein the step of correlating each data submission field to a database field type supported by a database application comprises the steps of:

determining a field type associated with each data submission field;

looking up a ~~selected~~ database field type corresponding to each data submission field; and

correlating each data submission field with its corresponding ~~selected~~ database field type.

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9. (currently amended) The method of claim 1, ~~wherein the step of correlating each data field to a database field type supported by a database application comprises~~
further comprising the steps of:

determining a field type associated with each data submission field;

looking up a default database field type and a list of database field type options
corresponding to each data submission field;

prompting the form ~~published~~ publisher to enter a selected database field type
from the list of database field type options for each data submission field; and

correlating each data submission field with its corresponding selected database
field type.

10. (currently amended) The method of claim 1, further comprising the steps of:

receiving a report file associated with the form, the report file comprising report
elements associated with the storage elements of the each database structure;

receiving a service definition comprising instructions for producing and delivering
reports based on the report file;

determining from the instructions that a report should be generated;

computing the report elements from the data entries associated with the storage
elements of the database structure;

rendering the a report using the report file; and

delivering the report to a specified location.

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11. (currently amended) The method of claim 1, further comprising the steps of:

forwarding the form submissions to the form publisher for review; and
receiving approval of the form submissions prior to the entering of the data entries of the form submissions into the corresponding storage elements of the database ~~structure~~.

12. (currently amended) The method of claim 1, further comprising the steps of:

receiving form logic defining conditions associated with ~~the~~ any receipt of form submissions using the form;

saving the form logic in association with the database ~~structure~~ corresponding to the form; and

applying the form logic when receiving form submissions using the form.

13. (original) The method of claim 12, wherein the form logic comprises:

conditions defining valid data entries for individual data submission fields; and
conditions defining a valid form submission based on a combination of data entries for several data submission fields.

14. (currently amended) A tangible computer storage medium storing computer-executable instructions for performing the method of claim 1.

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15. (currently amended) A tangible computer-controlled apparatus configured to perform the method of claim 1.

16. (currently amended) A computerized method for handling forms, comprising the steps of:

receiving a form from a form publisher comprising ~~one or more~~ data submission fields configured to receive user input;

automatically processing the form to identify the data submission fields;

automatically correlating each data submission field to a database field type supported by a database application by determining a field type associated with each data submission field, looking up a default database field type corresponding to each data submission field and ~~a list of database field type options corresponding to each data submission field, prompting the form publisher to enter a selected database field type from the list of database field type options for each data submission field, and~~ correlating each data submission field with its corresponding ~~selected~~ database field type;

automatically creating a database structure in the database application corresponding to the form, the ~~schema~~ database structure comprising a storage elements corresponding to each the data submission fields;

automatically publishing the form to receive form submissions comprising data entries into the data submission fields;

receiving one or more form submissions;

automatically entering the data entries of the form submissions into the corresponding storage elements of the database;

receiving a report file associated with the form, the report file comprising report elements associated with the storage elements of the database ~~table~~;

receiving a service definition comprising instructions for producing and delivering reports based on the report file;

determining from the instructions that a report should be generated;

computing the report elements from the data entries associated with the storage elements of the database;

rendering ~~the a~~ report using the report file; and

delivering the report to a specified location.

17. (currently amended) The method of claim 16, further comprising the steps of:

forwarding the form submissions to the form publisher for review; and

receiving approval of the form submissions prior to the entering of the data entries of the form submissions into the corresponding storage elements of the database.

18. (currently amended) The method of claim 16, further comprising the steps of:

receiving form logic defining conditions associated with ~~the~~ any receipt of form submissions using the form;

saving the form logic in association with the database ~~structure~~ corresponding to the form; and

applying the form logic when receiving form submissions using the form.

19. (original) The method of claim 18, wherein the form logic comprises:

conditions defining valid data entries for individual data submission fields; and

conditions defining a valid form submission based on a combination of data entries for several data submission fields.

20. (currently amended) A tangible computer storage medium storing computer-executable instructions for performing the method of claim 16.

21. (currently amended) A tangible computer-controlled apparatus configured to perform the method of claim 16.

22. (currently amended) A tangible computer-readable medium storing computer-executable instructions comprising:

a document handler operable for receiving forms and associated report files, each form comprising ~~one or more~~ data submission fields configured to receive user input, and each report file comprising report elements associated with the data submission fields of a corresponding form;

a forms database operable for storing a plurality of forms received through the document handler;

a reports database operable for storing a plurality of reports received through the document handler;

a table loader operable for automatically creating a database structure corresponding to each form, each database structure comprising a storage elements corresponding to each the data submission fields in a corresponding form; and

a forms manager operable for receiving one or more form submissions associated with each form and automatically entering data entries received through each the form submissions into the corresponding database table structure; and wherein the forms manager is further operable for receiving a service definition associated with each form, and for automatically producing and delivering reports based on the report files and database table structures corresponding to each form in accordance with instructions contained in a the corresponding service definition.

23. (currently amended) The computer-readable medium of claim 22, further comprising[[[:]] an interface system operable for receiving the service definitions from one or more user communication devices selected from the group including consisting of:

a landline telephone;

a wireless telephone;

a computer; and

a digital broadband device.

24. (currently amended) The computer-readable medium of claim 22, wherein the document handler is operable for processing documents in a format selected from the group ~~including~~ consisting of:

- an HTML document;
- a PDF document;
- an XML document; and
- a word processing document.

25. (currently amended) A tangible computer-controlled apparatus comprising the computer storage medium of claim 22.

Allowable Subject Matter

The present invention comprises a computerized method for receiving a form and automatically creating a database schema that corresponds to the form. The software of the present invention allows a user to either upload an existing form or create a form using a form wizard (see Figure 7A). After receiving the form, the software parses the form to extract field names and field types from the fields of the form. Each form field type is then matched to a corresponding database data type (see Figure 7B), and the software creates a database table that is associated with the form (see Figure 7A). The

database table comprises storage elements, each storage element corresponding to an associated data submission field of the form. Thereafter, the software allows the user to enter data into the form and stores the data in the corresponding storage elements in the database table.

Additionally, the software allows the user to either upload an existing report file associated with the form or create a report file associated with the form using a report wizard. The user may then print reports using the report file and the data entered into the form and stored in the database table.

Claims 1-25 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1, 16 and 22:

The closest prior art is Jennings (cited in the Office Action dated 9 August 2004) and Jones, Dennis et al., **Special Edition Using Microsoft FrontPage 2000**, Chapter 39 – **Using Databases with FrontPage 2000** “*Capturing Data from Forms*” (Que Publishing, © 17 May 1999). Each of these references are discussed in the following text.

Jennings discloses allowing a user to create a form to be used with corresponding Access database tables. The form comprises data fields into which data is entered by the user. The user also creates the corresponding database tables for the form and correlates the data fields of the form to the corresponding data structures

within the tables. However, Jennings fails to disclose ***automatically*** creating a database from a submitted form.

Jones discloses a form on an HTML web page comprising data entry fields. Jones also discloses that FrontPage 2000 is capable of automatically creating an Access database file through use of a dialog box. However, the user must specify the fields of the form that are to be saved in the database file; otherwise, none of the data is stored.

The prior art fails to disclose or suggest receiving a form from a user, ***automatically*** processing the form to identify data submission fields in the form, and ***automatically*** creating corresponding database tables that correspond to the form, ***wherein the tables comprise storage elements that correspond to the data submission fields of the form.***

Accordingly, the subject matter recited in Claims 1, 16 and 22 is allowed.

Claims 2-15, 17-21 and 23-25:

These claims are dependent upon Claims 1, 16 and 22, and are thus allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is (571) 272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH
June 13, 2005

A handwritten signature in black ink, appearing to read 'D. Hutton', with a stylized flourish at the end.

**DOUG HUTTON
PATENT EXAMINER
TECH CENTER 2100**